## **CLAIMS**

2017

1. A chain sprocket for roller or bushing chain drives, said sprocket having teeth (12) spaced by seatings (13) for chain rollers or bushings characterized in that at least some sprocket teeth have flank profiles differing from one another.

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- 2. A chain sprocket according to claim 1, characterized in that said eeth with different flank profiles are disposed on the circumference of the sprocket according to a sequence according to a precise rule.
- 3. A chain sprocket according to claim 2 characterized in that said rule is chosen, for example, by means of special software or experimental tests, among the combinations obtainable by randomly combining teeth with differing flank profiles.
- 4. A chain sprocket according to claim 1, wherein the tooth profile is established by standards, characterized in that the different profiles are comprised between a maximum profile and a minimum profile defined by the standards.
- 5. A chain sprocket according to claim 4, in which the profile is shaped like an arc of a circle characterized in that the radius of the arc of circle is comprised between a minimum radius and a maximum radius set down by the standards.
  - 6. A chain sprocket according to claim 1, characterized in that it comprises teeth having flank profiles not defined by standards.
- 7. A chain sprocket according to claim 1 characterized in that it comprises teeth having flank profiles defined by different standards.
  - 8. A chain sprocket according to claim 1 characterized in that it comprises teeth having flank profiles defined by standards and flank profiles not defined by standards.

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9. A sprocket according to claim 1, wherein the root diameter, the addendum circle diameter, and the radius of the roller or bushing seating are constant and do not vary from one tooth to another.

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